Radiological Physics and Technology

Volume 10, Number 2, June 2017

REVIEW ARTICLES

Two-dimensional breast dosimetry improved using three-dimensional breast image data
John M. Boone, Andrew M. Hernandez, J. Anthony Seibert 129

The current status of eye lens dose measurement in interventional cardiology personnel in Thailand
Anchali Krisanachinda, Suphot Srimahachota, Kosuke Matsubara 142

RESEARCH ARTICLES

Radiation doses for pregnant women in the late pregnancy undergoing fetal-computed tomography: a comparison of dosimetry and Monte Carlo simulations
Yuta Matsunaga, Ai Kawaguchi, Masanao Kobayashi, Shigetaka Suzuki, Shoichi Suzuki, Koichi Chida 148

Radiation dose optimization for the bolus tracking technique in abdominal computed tomography: usefulness of real-time iterative reconstruction for monitoring scan
Yuya Ishikawa, Atsushi Urikura, Tsukasa Yoshida, Keisuke Takiguchi, Yoshihiro Nakaya 155

Relation between one- and two-dimensional noise power spectra of magnetic resonance images
Yuki Ichinoseki, Yoshio Machida. 161

Investigation of noise sources for digital radiography systems
Lutfi Ergun, Turan Olgar. 171

Optimizing CT technique to reduce radiation dose: effect of changes in kVp, iterative reconstruction, and noise index on dose and noise in a human cadaver
Kevin J. Chang, Scott Collins, Baojun Li, William W. Mayo-Smith. 180

Evaluation of basic characteristics of a semiconductor detector for personal radiation dose monitoring
Kento Terasaki, Toshioh Fujibuchi, Hiroo Murazaki, Taku Kuramoto, Yoshiyuki Umezu, Yang Ishigaki, Yoshinori Matsumoto 189

The effect of influence quantities and detector orientation on small-field patient-specific IMRT QA: comparison of measurements with various ionization chambers
Henry Finlay Godson, Ravikumar Manickam, Sathiyan Saminathan, Kadirampatti Mani Ganesh, Retna Ponmalar 195

A simulation study for estimating scatter fraction in whole-body ^{18}F-FDG PET/CT
Shota Hosokawa, Kazumasa Inoue, Daisuke Kano, Fuminori Shimizu, Kazuya Koyama, Yoshihiro Nakagami, Yoshihisa Muramatsu, Masahiro Fukushi 204

A new shielding calculation method for X-ray computed tomography regarding scattered radiation
Hiroshi Watanabe, Kimiya Noto, Tomokazu Shohji, Yasuyoshi Ogawa, Toshioh Fujibuchi, Ichiro Yamaguchi, Hitoshi Hiraki, Tetsuo Kida, Kazutoshi Sasanuma, Yasushi Katsunuma, Takurou Nakano, Genki Horitsugi, Makoto Hosono 213

Characteristic X-ray imaging for palliative therapy using strontium-89 chloride: understanding the mechanism of nuclear medicine imaging of strontium-89 chloride
Yoshiki Owaki, Kazumasa Inoue, Hiroto Narita, Keisuke Tsuda, Masahiro Fukushi 227

Simultaneous detection of hepatocellular carcinoma and vessel thrombus by using SPIO-enhanced B-TFE with the T_2 preparation pulse technique
Masayuki Kanamoto, Tosiaki Miyati, Kazuki Terashima, Kei Katahira, Ryoji Ida, Daisaku Suga, Nobukazu Fuwa 234

Does applying resolution recovery to normal databases confer an advantage over conventional 3D-stereotactic surface projection techniques?
Nobuhiro Yada, Hideo Onishi, Masahiro Miyai, Kentarou Ozasa, Takashi Katsube, Keiichi Onoda, Masuo Haramoto, Yasushi Yamamoto, Shuhei Yamaguchi, Hajime Kitagaki. 240

TECHNICAL NOTE

Three-dimensional phase contrast magnetic resonance imaging validated to assess pulmonary artery flow in patients with chronic thromboembolic pulmonary hypertension
Masateru Kawakubo, Hiroshi Akamine, Yuzo Yamasaki, Atsushi Takemura, Kohtaro Abe, Kazuya Hosokawa, Junji Morishita, Michinobu Nagao. 249